

**Abstract**

The present invention provides a hermetically sealed module to be located in an external pressure vessel providing protection from external pressure in an undersea environment. The hermetically sealed module includes at least one optical amplifier and an hermetically sealed housing for containing the optical amplifier. The housing has a retaining element for retaining the housing within the external pressure vessel. The module also includes a plurality of ports for conveying into the housing, in an hermetically sealed manner, at least one optical fiber and a conductor incorporated in an undersea optical fiber cable. The conductor supplies electrical power to the optical amplifier. At least one conductive terminal is located in the housing for establishing electrical contact with the conductor traversing each of the plurality of ports. The conductive terminal supplies electrical power from the conductor to the optical amplifier.